



MATERIAL SAFETY DATA SHEET

ALSAN RS LO CATALYST POWDER

HMIS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #0056b3; color: white;"> <td style="text-align: center;">2</td> <td style="text-align: center;">HEALTH</td> </tr> <tr style="background-color: #ff0000; color: white;"> <td style="text-align: center;">2</td> <td style="text-align: center;">FLAMMABILITY</td> </tr> <tr style="background-color: #ff8c00; color: white;"> <td style="text-align: center;">2</td> <td style="text-align: center;">REACTIVITY</td> </tr> <tr style="background-color: #cccccc;"> <td style="text-align: center;">G</td> <td style="text-align: center;">PROTECTIVE EQUIPMENT</td> </tr> </table>	2	HEALTH	2	FLAMMABILITY	2	REACTIVITY	G	PROTECTIVE EQUIPMENT		<p style="text-align: right; margin-top: 10px;">ORGANIC PEROXIDE CLASS 5 UN 3106 P.G.: II</p>
2	HEALTH									
2	FLAMMABILITY									
2	REACTIVITY									
G	PROTECTIVE EQUIPMENT									

SECTION II. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: Product number: Use: Manufacturer: Distributor: In case of emergency:	Alsan RS LO Catalyst Powder L-RS004 Catalyst activator for Alsan RS low odor PMMA Soprema S.A. 14, rue de Saint Nazaire - BP 121 F-67025 Strasbourg CEDEX 1 France Soprema, Inc. 310 Quadral Drive Wadsworth, Ohio 44281 UNITED STATES SOPREMA (8:00am to 5:00pm - Eastern time): (800) 356-3521 CHEMTREC (USA) (24h.): (800) 424-9300 CANUTEC (Canada): (613) 996-6666 International: (703) 527-3887
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EMERGENCY OVERVIEW!!!

ORGANIC PEROXIDE - HEAT OR CONTAMINATION MAY CAUSE HAZARDOUS DECOMPOSITION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.

SECTION II. COMPOSITION AND INFORMATION ON DANGEROUS INGREDIENTS

Component	CAS#	% by weight	ACGIH TLV	OSHA PEL
Dibenzoyl peroxide	94-36-0	20 - 34	5.000 mg/m ³	5.000 mg/m ³
Dicyclohexyl phthalate	84-61-7	15 - 40	Not established	n/a
Calcium Carbonate	471-34-1	15 - 40	Not established	15.000 mg/m ³

TSCA: all ingredients are listed

SECTION III. POTENTIAL HEALTH EFFECTS

White granules with a slight odor.

DANGER! ORGANIC PEROXIDE HEAT OR CONTAMINATION MAY CAUSE HAZARDOUS DECOMPOSITION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.

Toxic and flammable vapors may be produced under combustion. Isolate from sources of ignition.

Health effects

Skin and eye contact are the primary routes of exposure to this product. No toxic effects are expected to be caused by inhalation of fumes or vapors. Inhalation of powder, dust or fumes may be irritating to the upper respiratory system. Skin contact may cause mild irritation. Eye contact may cause mild to moderate irritation. This product has a low order of toxicity. No significant toxic effects are expected.

Carcinogenicity

IARC No
NTP No
OSHA No
ACGIH No

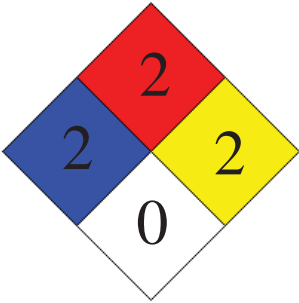
SECTION IV. FIRST AID MEASURES

SKIN	Remove contaminated clothing and equipment. Wash all affected areas with plenty of soap and water for at least 15 minutes. DO NOT attempt to neutralize with chemical agents. Wash any contaminated clothing before reuse. Obtain medical advice if irritation occurs.
EYES	Flush eyes with large quantities of running water for a minimum of 15 minutes. If the victim is wearing contact lenses, remove them. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. DO NOT let victim rub eye(s). Do not attempt to neutralize with chemical agents. Oils or ointments should not be used at this time. Get medical attention if eye irritation occurs.
INHALATION	Remove to fresh air. If breathing becomes difficult, oxygen may be given, preferably with a physician's advice. If not breathing, give artificial respiration. Get medical attention.
INGESTION	Immediately give several glasses of water. DO NOT induce vomiting. If vomiting occurs, keep head below hips to reduce the risk of aspiration. Give fluids again. Have a physician determine if conditions of patient will permit induction of vomiting or evacuation of stomach. Never give anything by mouth to a person who is unconscious or convulsing. If victim is unconscious, monitor pulse, breathing and airway. If breathing stops, begin artificial respiration immediately. If the heart has stopped, give cardiopulmonary resuscitations (CPR). Get medical attention immediately.
Note to Physician	Persons with pre-existing skin disease may be at an increased risk if exposed dermally to this material. No specific antidote is known. Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical conditions.

SECTION V. FIRE-FIGHTING MEASURES

Flash point	Not determined
Extinguishing media	Use water fog, dry chemical, carbon dioxide, or foam extinguishing agents. Extinguish large fires with large amounts of water spray, fog or foam from a safe/protected position.

SECTION V. FIRE-FIGHTING MEASURES

Special fire fighting procedures	As in any fire, prevent human exposure to fire, smoke, fumes or product of combustion. Evacuate non-essential personnel from the fire area. Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. If possible, move containers from the fire area. If not leaking, keep fire exposed containers cool with a water fog or spray to prevent rupture due to excessive heat. High pressure water may spread product from broken containers increasing contamination of fire hazard. Dike fire control water for later disposal. Do not allow contaminated water to enter waterways.	
Fire and explosion hazards	Toxic and flammable vapors may be produced under combustion. Isolate from sources of ignition. This product can produce flammable vapors which may travel to a source of ignition and flash back.	
Hazardous products of combustion	Oxides of carbon and biphenyl (OSHA PEL=1 mg/m ³ ; ACGIH TLV=1.3mg/m ³) are produced during the decomposition of this product. Flammable gases and vapors may also be produced during thermal decomposition.	
NFPA (USA)		<p align="center">NFPA Ratings</p> <p>Health.....2 Flammability.....2 Reactivity.....2 Other</p>

SECTION VI. ACCIDENTAL RELEASE MEASURES

RELEASE OR SPILL:

Remove all sources of ignition from the spill area. Stop source of spill. If tools are needed, they should be non-sparking. Dike area to prevent spill from spreading. Evacuate all non-essential personnel upwind. Any person entering an area of a significant spill or an unknown concentration of a gas or a vapor should use a NIOSH-approved, positive-pressure/pressure demand, self-contained breathing apparatus. Protective equipment to prevent skin and eye contact should be worn. Soak up spilled material with a suitable absorbent such as clay, sand or earth. Sweep up absorbed material and place in a chemical waste container for disposal.

SECTION VII. HANDLING AND STORAGE

HANDLING:

Wear protective clothing when handling this product to avoid eye and skin contact. Wash thoroughly after handling. Electrically grounded tanks and containers should always be used as should non-sparking, electrically grounded hand tools and appliances. Ground or bond to ground all vessels when transferring to prevent the accumulation of static electricity. See Nation Electric Code. Emptied container may retain product residues. Follow all warnings and precautions even after container is emptied.

STORAGE:

To insure product quality, storage temperatures should not exceed 77 °F (25 °C). To insure against possible exothermic self-accelerating decomposition, storage temperatures must not exceed 131 °F (55 °C). This storage temperature is derived from the SADT (see Section 10). Keep containers tightly closed. Store away from reducing agents, strong oxidizers, acids, alkalis and accelerators.

SECTION VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

HANDS	Skin contact with liquid or its aerosol should be minimized through the use of suitable protective clothing, gloves and footwear selected with regard for use condition exposure potential.
RESPIRATORY	Use a NIOSH-approved organic vapor respirator with dust, mist and fume filters to reduce potential for inhalation exposure if use conditions generate vapor, mist or aerosol and adequate ventilation (e.g., outdoor or well-ventilated area) is not available. Where exposure potential necessitates a higher level of protection, use a NIOSH-approved, positive-pressure/pressure-demand, air-supplied respirator. When using respirator cartridges or canisters, they must be changed frequently (following each use or at the end of the work shift) to assure breakthrough exposure does not occur.

SECTION VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION		
EYES	Because eye contact with this product may cause irritation, chemical goggles and/or a face shield should be worn when handling tile product.	
ENGINEERING CONTROLS	Local exhaust ventilation, enclosed system design, continuous monitoring devices, process isolation and remote control are traditional exposure control techniques which may be used to effectively minimize employee exposure.	
OTHER INFORMATION	Safety showers, with quick opening valves which stay open, should be readily available in all areas where this material is handled or stored, Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.	
AVAILABLE EXPOSURE LIMITS	Dibenzoyl Peroxide	
	Agency	Value/Unit of Measurement
	OSHA, PEL/TWA	5.000 mg/m ³
	ACGIH TLV/TWA	5.000 mg/m ³
	NIOSH REL/TWA	5.000 mg/m ³
	Dicyclohexyl Phthalate	
	OSHA PEL/TWA	5.000 mg/m ³
	Calcium Carbonate	
OSHA PEL/TWA	15.000 mg/m ³	
PEL	Permissible Exposure Limit	
TLV	Threshold Limit Value	
TWA	Time Weighted Average	
STEL	Short Term Exposure Limit	
CEL	Ceiling Exposure Limit	
REL	Recommended Exposure Limit	
WEEL	Workplace Environmental Exposure Limit	

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL FORM	Granules
COLOR	White
ODOR	Slight odor
ODOR THRESHOLD	Not determined
VOLATILE %	Not determined
RELATIVE VAPOR DENSITY (air = 1)	Not determined
VAPOR PRESSURE (mm Hg)	Not determined
BOILING POINT/RANGE	Not determined
EVAPORATION RATE	Not determined
MELTING POINT/RANGE	Not determined
CLOUD POINT	Not determined
POUR POINT	Not determined
FLASH POINT	Not determined
SOLUBILITY IN WATER	Insoluble
SOLUBILITY IN OTHER SOLVENTS	Not determined
AUTO IGNITION TEMPERATURE	Not determined
SPECIFIC GRAVITY/DENSITY	Not determined
PARTITION COEFFICIENT N-OCTANOL/WATER	Not determined
BULK DENSITY	Not determined
OTHER INFORMATION	SADT = 140 °F (60 °C) see Section 10
EXPLOSIVE LIMITS	Lower: N/D Upper: N/D

SECTION X. STABILITY AND REACTIVITY

STABILITY:

This product is stable at ambient temperatures but may decompose if exposed to temperatures above 131 °F (55 °C).

INCOMPATIBILITY:

This product is incompatible with strong acids, strong oxidizer, metal salts, reducing agents and accelerators.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition products are carbon dioxide, carbon monoxide and biphenyl.

HAZARDOUS POLYMERIZATION:

Hazardous polymerization is riot expected to occur under normal temperatures and pressures.

CONDITIONS TO AVOID:

The SADT for this product is 140 °F (60 °C). The SADT (self accelerating decomposition temperature) is an experimentally derived temperature at which a typical package of the product will undergo self accelerating decomposition. Decomposition can be expected to be hazardous and uncontrollable. Under no circumstances should this product be exposed to temperatures near or above the emergency temperature of 131 °F (55 °C).

Such an exposure could initiate hazardous decomposition. Contact with Incompatible materials such as acids, alkalis, heavy metals and reducing agents will also result in hazardous decomposition.

SECTION XI. TOXICOLOGICAL INFORMATION

Oral LD₅₀

Ingestion toxicity data is not available for this product. However, the oral LD₅₀ for a 78% granular dibenzoyl peroxide product is > 5000 mg/kg in rats.

Dermal LD₅₀

Dermal toxicity data is not available for this product. However it is not considered a primary skin irritant or corrosive to skin based upon tests in rabbits with a 78% granular dibenzoyl peroxide product. 10% Dibenzoyl peroxide in polyethylene glycol was positive in a human skin sensitization study.

Inhalation LC₅₀

Inhalation toxicity data is not available for this product. However, a 78% wet dibenzoyl peroxide product when tested in rats had an LC₅₀ >24.3 mg/L after a 4 hour exposure.

Skin

Chronic dermal exposure effects for this product are not known. However, prolonged end/or repeated contact is expected to cause mild irritation, deflating, dermatitis and may cause sensitization.

Eye

The acute effects of this product have not been determined. However, a 78% granular dibenzoyl peroxide product was a slight irritant to rabbit eyes (5 minutes) and moderate Irritant to rabbit eyes (24 hours).

Chronic toxicity/carcinogenicity

Chronic ingestion effects of this product are not known. Prolonged and/or repeated inhalation may cause respiratory tract irritation. While this product has not been evaluated for genetic activity, a 78% granular dibenzoyl peroxide product gave negative results in the Ames Test, Chromosome Aberration Assay, and the Mouse Dominant Lethal Test. The reproductive toxicity of this product is not known. The neurotoxic effects of this product are not known. Overexposure to this product may affect the skin, eyes, and respiratory system.

Other toxicological Information

No other toxic effects for this product are known.

SECTION XII. ECOLOGICAL INFORMATION**Ecotoxicological information**

The ecological toxicity of this product is not known.

Bioaccumulation

Chemical fate information on this product is not known.

Other information

Other ecological information on this product is not known.

SECTION XIII. DISPOSAL CONSIDERATIONS**Waste disposal in accordance with regulations**

The characteristic of reactivity per RCRA would be exhibited by the unused product If It becomes a Waste material. The EPA Hazardous Waste Number of D003 would be applicable.

Container disposal

Containers should be drained of residual product before disposal. Empty containers should be disposed of in accordance with all applicable laws and regulations.

SECTION XIV. TRANSPORTATION INFORMATION**ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXIDE, 34%) 5.2**

HAZARD CLASS: 5

UN: 3106

PG: II

North American Emergency Response Guide No.: 145

Required labels

ORGANIC PEROXIDE

Environmentally hazardous substance

This product does not contain an environmentally hazardous substance per 49 CFR 172.101 Appendix A.

SECTION XV. REGULATORY INFORMATION

Products and/or components listed below are subject to the following:

Dibenzoyl peroxide

Massachusetts Substance List	Yes
New Jersey R-T-K Hazard Sub.	Yes
Pennsylvania Hazardous Substance List	Yes
SARA Title III, Section 313	Yes
Toxic Substance Cont. Act - listed	Yes
Domestic Substance List - Canada	Yes

Decyclohexyl phthalate

Toxic Substance Cont. Act - listed	Yes
Domestic Substance List - Canada	Yes

HAZARD CLASSES

Description	Applicable
HMIS Hazard Rating Source	HMIS
HMIS Health	2
HMIS Flammability	2
HMIS Reactivity	2
WHMIS Hazard Class	C, D-2B, F

SECTION XVI. OTHER INFORMATION

Glossary:

ACGIH: American Conference of Governmental Industrial Hygienists
ANSI: American National Standards Institute
ASTM: American Society for Testing and Materials
CAS: Chemical Abstract Services
CFR: Code of Federal Regulations (United States)
CSA: Canadian Standardisation Association
DOT: Department of Transportation (United States)
DSL: Domestic Substances List (Canada)
EPA: Environmental Protection Agency (United States)
HMIS: Hazardous Material Information System
IARC: International Agency for Research on Cancer
LC50: (Lethal concentration₅₀) Concentration of a substance in air that causes death of 50% mortality of a defined animal population
LD50: (Lethal dose₅₀) Single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause the death of 50% of a defined animal population.
NFPA: National Fire Protection Association (United States)
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety & Health Administration (United States)
PEL: Permissible Exposure Limit
RCRA: Resource Conservation and Recovery Act (United States)
RTECS: Registry of Toxic Effects of Chemical Substances
TDG: Transportation of Dangerous Goods
TLV: Threshold Limit Value
TWA: Time-weighted average
TSCA: Toxic Substances Control Act (United States)
WHMIS: Workplace Hazardous Materials Information System (Canada)

Reference:

Supplier MSDS

This MSDS has been prepared by: SOPREMA, INC.
For information: 800-543-3085

The Material Safety Data Sheets of SOPREMA are available on Internet at the following site: [HTTP://WWW.SOPREMA.US](http://WWW.SOPREMA.US)

Justification of the update:

New MSDS.

This MSDS contains all the information required by ANSI Z-400.1-1998 standard (United States), by regulation 29 CFR Part 1910.1200 of the Hazard Communication Standard of OSHA, and is in accordance with standard DORS/88-66 OF WHMIS Canada.

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